STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

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October 23, 2015

Subject: Project No. 135-326
Replacement of MNRR Bridge over Atlantic Street-Phase 1 I-95 NB Exit 8 Ramp Bridge.

NOTICE TO CONTRACTORS:

This is to notify all concerned and especially the prospective bidders that the bid opening for the subject project is still scheduled for November 4, 2015 at 2:00 P.M. in the Conference Room of the Department of Transportation Administration Building, 2800 Berlin Turnpike, Newington, Connecticut.

Addendum No. 4 is attached and can also be obtained on the Statewide Contracting Portal at http://www.biznet.ct.gov/scp_search/BidResults.aspx?groupid=64

This addendum is necessary to revise special provisions, delete special provisions, add new contract items, revise contract items, delete contract items, add new plan sheets, revise plan sheets and delete plan sheets.

Bid Proposal Forms (0135-0326.EBS file and amendment file 0135-0326.00# if applicable) are available for those bidders that have received approval from the Department to bid on the subject project.

Pre-Bid Questions and Answers: Questions pertaining to DOT advertised construction projects must be presented through the CTDOT Pre-Bid Q and A Website. The Department cannot guarantee that all questions will be answered prior to the bid date. **PLEASE NOTE - at 12:01 am, the day before the bid, the subject project(s) being bid will be removed from the Q and A Website, Projects Advertised Section, at which time questions can no longer be submitted through the Q and A Website. At this time, the Q and A for those projects will be considered final, unless otherwise stated and/or the bid is postponed to a future date and time to allow for further questions and answers to be posted.**

Harold J. Emond
For: Gregory D. Straka
Contracts Manager
Division of Contracts Administration

OCTOBER 22, 2015
REPLACEMENT OF MNRR BRIDGE OVER ATLANTIC STREET – PHASE 1
I-95 NB EXIT 8 RAMP BRIDGE

STATE PROJECT NO. 135-326
TOWN OF STAMFORD

ADDENDUM NO. 4

This Addendum addresses the following questions and answers contained on the "CT DOT QUESTIONS AND ANSWERS WEBSITE FOR ADVERTISED CONSTRUCTION PROJECTS":

Question and Answer Nos. 47, 48, and 52.

SPECIAL PROVISIONS

REVISED SPECIAL PROVISIONS

The following Special Provisions are hereby deleted in their entirety and replaced with the attached like-named Special Provisions:

- NOTICE TO CONTRACTOR – ENVIRONMENTAL INVESTIGATIONS
- ITEM NO. 0101128A – SECURING, CONSTRUCTION, AND DISMANTLING OF WASTE STOCKPILE AND TREATMENT AREA
- ITEM NO. 0601091A – SIMULATED STONE MASONRY

DELETED SPECIAL PROVISION

The following Special Provision is hereby deleted in its entirety:

- ITEM NO. 0202318A – MANAGEMENT OF REUSABLE CONTROLLED MATERIAL

CONTRACT ITEMS

NEW CONTRACT ITEMS

ITEM NO.	DESCRIPTION	UNIT	QUANTITY
1008011	¾" RIGID METAL CONDUIT - SURFACE	L.F.	335
1012010	NO. 10 SINGLE CONDUCTOR	L.F.	940

REVISED CONTRACT ITEMS

ITEM NO.	DESCRIPTION	ORIGINAL QUANTITY	REVISED QUANTITY
0101117A	CONTROLLED MATERIAL HANDLING	12,880 C.Y.	18,898 C.Y.
0202120	ROCK EXCAVATION (NO EXPLOSIVES)	525 C.Y.	24 C.Y.
0202315A	DISPOSAL OF CONTROLLED MATERIALS	8,610 TON	28,347 TON

DELETED CONTRACT ITEMS

ITEM NO.	DESCRIPTION	ORIGINAL QUANTITY	REVISED QUANTITY
0202318A	MANAGEMENT OF REUSABLE CONTROLLED MATERIAL	500 C.Y.	0 C.Y.

PLANS

NEW PLANS

The following Plan Sheets are hereby added to the Contract:

03.024-2.A4, and 04.015-1.A4

REVISED PLANS

The following Plan Sheet is hereby deleted and replaced with the like-numbered Plan Sheet:

09.001.A4

DELETED PLANS

The following Plan Sheets are hereby deleted in their entirety:

03.024-1.A3, 04.015, and 18.010.A1

The Detailed Estimate Sheets do not reflect these changes.

The Bid Proposal Form has been revised to reflect these changes.

There will be no change in the number of calendar days due to this Addendum.

The foregoing is hereby made a part of the contract.

NOTICE TO CONTRACTOR - ENVIRONMENTAL INVESTIGATIONS

Environmental site investigations have been conducted that involved the sampling and laboratory analysis of soil and groundwater collected from various locations and depths within the Project limits. The results of these investigations indicated the presence of total petroleum hydrocarbons (TPH), volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), RCRA-8 metals, poly-chlorinated biphenyls (PCBs), and pesticides in soils within proposed construction areas at concentrations above the Connecticut Department of Energy and Environmental Protection (CT DEEP) Remediation Standard Regulations (RSRs). Based on these findings, an Area of Environmental Concern (AOEC) and four (4) PCB AOECs have been identified within the proposed Project limits. Additionally, the reminder of the Project Area is considered a Low-Level Area of Environmental Concern (LLAOEC). Groundwater within the Project limits is also impacted with VOCs and SVOCs above applicable RSR numeric criteria. (It is noted that groundwater was limited in discovery during the investigation of overburden soils). The presence of the compounds at these concentrations will require material-handling measures for soils and groundwater beyond those required for normal construction operations and will be restricted to the methods described herein.

The Contractor is hereby notified that controlled materials requiring special management or disposal procedures will be encountered during various construction activities conducted within the Project limits. Therefore, the Contractor will be required to implement appropriate health and safety measures for all construction activities to be performed within the AOEC/PCB AOEC/LLAOEC locations. These measures shall include, but are not limited to, air monitoring, engineering controls, personal protective equipment and decontamination, equipment decontamination and personnel training. WORKER HEALTH AND SAFETY PROTOCOLS WHICH ADDRESS POTENTIAL AND/OR ACTUAL RISK OF EXPOSURE TO SITE SPECIFIC HAZARDS IS SOLELY THE RESPONSIBILITY OF THE CONTRACTOR.

The Connecticut Department of Transportation, as Generator, will provide an authorized representative to sign all manifests and waste profile documentation required by disposal facilities for disposal of controlled materials and contaminated groundwater.

The Sections which shall be reviewed by the Contractor include, but are not limited to, the following:

- Item No. 0101000A – Environmental Health and Safety
- Item No. 0101117A – Controlled Materials Handling
- Item No. 0101128A – Securing, Construction, and Dismantling of a Waste Stockpile and Treatment Area
- Item No. 0101175A – PCB Waste Handling

- Item No. 0101176A – Disposal of PCB Waste
- Item No. 0202315A – Disposal of Controlled Material
- Item No. 0204213A – Handling Contaminated Groundwater

The Contractor is alerted to the fact that a Department environmental consultant will be on site for excavation and dewatering activities within the AOEC/PCB AOEC/LLAOEC locations to collect soil and groundwater samples (if necessary), and to observe site conditions for the State. **The waste stockpile area (WSA) indicated on the plans is to be used exclusively for temporary stockpiling of excavated materials from within the project AOEC/ surplus excavated material from LLAOEC locations for determination of disposal classification. Soils from PCB AOECs will not be staged in the WSA unless already containerized and approved by the Engineer.**

All suitable material excavated from the AOEC may be reused within the AOEC from which it was excavated as fill/backfill, in accordance with the following conditions: (1) such soil is deemed to be structurally suitable as fill by the Engineer; (2) such soil is not placed below the water table; (3) the CT DEEP groundwater classification of the area where the soil is to be reused as fill does not preclude said use; and (4) such soil is not placed in an area subject to erosion. Soils within the LLAOECs are to be reused on site prior to the use of other soils and/or fill such that no excess soils requiring off-site disposal are generated from the LLAOEC locations. Soils excavated from PCB AOECs are slated for disposal and are not permitted for reuse.

Information pertaining to the results of the environmental investigations discussed can be found in the documents listed below. These documents shall be available for review at the Office of Contracts, 2800 Berlin Turnpike, Newington, Connecticut.

- Task 210: Subsurface Site Investigation – Reconstruction of Metro-North Railroad Bridge over Atlantic Street, Stamford, CT; prepared by HRP Associates, Inc., dated January 6, 2015.

ITEM NO. 101128A - SECURING, CONSTRUCTION AND DISMANTLING OF A WASTE STOCKPILE AND TREATMENT AREA

Description:

Work under this Item shall consist of the securing and construction of the Waste Stockpile Area (WSA) at the location designated on the Project Plans and in accordance with the Contract. All controlled and hazardous materials excavated during construction activities shall be stockpiled in the WSA. The WSA shown on the Plans is to be used exclusively for temporary stockpiling of excavated materials from within the project AOEC (and for surplus LLAOEC material) for determination of disposal classification. Temporary stockpiling of PCB AOEC material is not allowed in the WSA (unless kept containerized as defined in Special Provision 0101175A and approved by the Project Engineer).

Work under this item shall include all new materials necessary to construct the WSA and the repair to, replacement of and /or resetting of damaged components, which is not limited to, construction blocks, damaged asphalt, anti-tracking pad(s), and the proposed chain link fence and gate(s) prior to the abandonment of the WSA."

Materials:

The required materials are detailed on the Project Plans. All materials shall conform to the requirements of the Contract.

Construction blocks shall be solid precast rectangular concrete six feet in length, three in height, and two feet in depth.

Polyethylene plastic sheeting for underlayment shall be a thickness of 30 mil and minimum width of ten feet.

Sand bags used to secure polyethylene sheeting soil covers shall have a minimum weight of thirty pounds.

Bedding sand shall conform to Section 6.51.02 of the Specifications.

Subbase shall conform to Section 2.12 of the Specifications.

Processed Aggregate Base shall conform to Section 3.04 of the Specifications.

Hay bales shall conform to the requirements of Section 2.18 of the Specifications.

HMA shall conform to Section 4.06 of the Special Provisions.

Chain Link Fence with Privacy Screening shall conform to the requirements of Section 9.13 of the Specifications.
24' Chain Link Fence gate with Privacy Screening shall conform to the requirements of Section 9.13 of the Specifications.
Catch Basin and Top shall conform to the requirements of Section 5.07 of the Specifications.

Roll-off/Storage Containers shall be of watertight, steel-body construction, of the size specified and able to handle the storage and subsequent transportation of material to the disposal facility.

Construction Methods:

The WSA shall be constructed in accordance with the Contract at the location shown on the Project Plans.

Construction of the WSA shall be completed prior to the initiation of construction activities generating Controlled Materials. The Contractor is responsible for the maintenance and protection of all utilities potentially affected during WSA construction. The Contractor shall locate and mark all existing utilities potentially affected prior to initiating WSA construction.

The proposed location of the WSA shall be cleared of any debris and vegetation as directed by the Engineer. Any objectionable materials, which may result in damage to the polyethylene sheeting underlayment, shall be removed prior to stockpiling excavated controlled materials.

The Contractor shall comply with the terms and conditions of the DEEP "General Permit for Contaminated Soil and/or Sediment Management (Staging and Transfer)", including the General Operating Conditions and the Specific Operating Conditions, except that the Engineer will conduct all soil/sediment characterization and perform all record keeping. In particular, the Contractor shall:

1. Construct and repair the WSA in conformance with the requirements of the General Permit.
2. Prevent unauthorized entry onto the stockpiles by the use of fences, gates, or other natural or artificial barriers.
3. Install anti-tracking measures at the WSA to ensure the vehicles do not track soil from the WSA onto a public roadway at any time.
4. Post and maintain a sign that is visible from a distance of at least 25' at the WSA identifying the name of the permittee (State of CT, Department of Transportation), the DOT field office phone number, the hours of operation for the WSA, and the phrase, "Temporary Soil Staging Area". Lettering shall be at least one inch (1") high with a minimum overall sign dimension of four (4) feet wide by two (2) feet high. Such sign is only required if the capacity of the WSA is equal to or greater than 1,000 cubic yards. If initially the WSA capacity is less than 1,000 c.y. and the WSA capacity is subsequently increased, the Contractor shall post and maintain the required sign at no additional cost to the State, prior to stockpiling the additional material.

Following the removal of all stockpiled material, the Contractor shall use dry decontamination procedures for all surfaces of the WSA as directed by the Engineer. Residual materials shall be disposed of as Controlled Materials. If the results from dry methods are unsatisfactory to the Engineer, the Contractor shall modify decontamination procedures as required.

The Contractor shall be responsible for the collection and treatment/recycling/disposal of any liquid wastes that may be generated by its decontamination activities in accordance with applicable regulations.

Upon completion of the Project, the Contractor will complete the removal of all residual Controlled Materials and all materials such as polyethylene sheeting and sand bags. Materials shall be disposed of by the Contractor as solid waste in accordance with the Contract and all Federal, State and local regulations. The WSA will remain intact for future DOT use.

Operation and maintenance of the WSA during the project shall be included under Item 101117A "Controlled Material Handling".

Method of Measurement:

This work will be measured for payment at the Lump Sum cost for securing, construction, and abandoning of a WSA.

Basis of Payment:

This work will be paid for at the Contract Lump Sum, which shall include all materials, tools, labor, equipment, permits, and work needed to secure, construct, and decontaminate the WSA, including all clearing, grubbing, grading, excavation, gravel, pavement, fence and gate installations with privacy screening, drainage structures, debris removal, construction blocks, excavation and clean up. The work shall also include site restoration which shall include but not limited to repair, resetting and /or replacement of damaged construction blocks, fences, privacy fence screening, access gates, asphalt, catch basins, etc. prior to the WSA's abandonment. All concrete blocks shall be restored to a vertical/plumb condition.

All materials, labor and equipment associated with compliance with the General Permit for Contaminated Soil and/or Sediment Management (Staging and Transfer) will not be measured separately, but will be considered incidental to the item "Securing, Construction and Dismantling of a Waste Stockpile and Treatment Area".

Pay Item	Pay Unit
Securing, Construction and Dismantling Of a Waste Stockpile and Treatment Area	L.S.

ITEM #0601091A – SIMULATED STONE MASONRY

Description: This item shall consist of furnishing and installing textured, formed concrete surfaces using form liners designed to duplicate closely the appearance of natural stone as described herein of the type and size called for on the plans, including all accessories or hardware and color staining required in accordance with these specifications.

Materials:

1. Design and Pattern of Form Lined Concrete Surfaces: The design and pattern of form lined concrete surfaces shall follow the layout shown on the contract plans and as described herein. Final texture of cast stone concrete surfaces shall accurately simulate the appearance of real stone.

   The design pattern shall be as shown in the design plans.

2. Form Liner:

   a. Form liners shall be reusable elastomeric form liners, made of high-strength urethane and cutable form liners, made of lower grade urethane, easily attachable to forms. The form liners shall leave crisp, sharp definition of the architectural surface. The form liners shall not compress more than 1/4 inch when concrete is poured at a rate of ten vertical feet per hour. The form liners shall be removable without causing deterioration of surface or underlying concrete. The form liner shall conform to the pattern shown on the plans; no substitutions will be permitted.

   b. The form liner shall be designed to permit 180 degree rotation and interconnection with itself or another pattern liner of differing horizontal dimension. Maximum relief of pattern and the average relief shall be as shown on the contract plans. The simulated stone pattern shall vary in a random manner in the coursing parameters to prevent noticeable multiple duplicate pattern repetition and avoid stacked joints.

   c. In addition to orthogonal surfaces, the form liner shall be capable of forming curved and/or battered surfaces, if shown on the plans, while maintaining the dimensioned coursing and plumb vertical joints without distortion.

3. Release Agent: If a form release agent is used, it must be of a non-staining type. The release agent shall be compatible with the stone masonry architectural treated surface as recommended by the manufacturer.

4. Form Ties: Form ties shall be designed to separate at least one inch back from finished surface, leaving only a neat hole that can be plugged with patching material. The patching material shall be Tamms Speed-crete or equal mixed with latex or acrylic bonder, as approved by the manufacturer and Engineer.

5. Color Stain: Color stain shall replicate the color of the existing brownstone abutments at Bridge No. 08012R, Metro-North Railroad over Atlantic Street. Stain product shall be a penetrant capable of creating a surface finish that is breathable (allowing water vapor transmission), and that resists deterioration from water, alkali, fungi, sunlight and weathering. The stain shall be a waterborne, low V.O.C. material less than 180 grams/liter. In addition, the stain shall meet the following durability requirements:

    a. Weathering resistance - 2000 hours accelerated exposure in accordance with the 3-bulb test of ASTM G23

    b. Scrub test - 100 revolutions

    c. Abrasion resistance (Tabor CF-10) - 500 cycles

    d. Adhesion - 1.00 mm cross cuts on glass pass 3 or higher on a scale of 1 to 5 in accordance with ASTM D3359

    e. Chemical resistance - ASTM D1308.

Construction Methods:

1. Quality of Work: The process of form lining and texturing shall be performed in strict accordance with the manufacturer's written recommendations and as approved by the Engineer.

2. Quality Assurance:

    a. Manufacturer of the form liners shall have five years experience making custom simulated stone molds.

    b. Contractor/Subcontractor (installer) shall have five years experience pouring vertically formed architectural concrete. The installer shall be trained in the manufacturer's special techniques in order to achieve realistic surfaces.

    c. A Pre-installation Meeting shall be scheduled with the manufacturer's representative, installer, designer, and Department inspection personnel to assure understanding of simulated stone masonry use, requirements for construction of mockup, and to coordinate the work.

    d. It is the Contractor’s responsibility to assure that the texture of all finished, form lined cast-in-place and precast concrete surfaces meets the requirements of the plans and special provisions.

3. Shop Drawings and Submittals: Before fabricating any materials, the contractor shall submit shop drawings, product data sheets, samples and mock-ups to the Engineer for approval in accordance with Article 1.05.02 for the materials listed below. These drawings

and submittals shall include, but not be limited to, the following information: manufacturer's name, listing of product compliance with referenced specification standards, complete details of the assemblies, material designations, nominal hardness of appropriate materials, design loads, quantities and locations. The Engineer's drawings shall not be reproduced, traced or used for shop drawings or erection purposes.

4. Submittals:

   a. Catalog cuts, manufacturer's literature, and technical data for the materials specified herein, including but not limited to simulated stone mold pattern, form liner, release agent, concrete patching material and color stain.

   b. Photographs: Color photographs of three (3) similar past projects performed by the manufacturer. Include project names, locations and a telephone number of the previous project Owners' representatives.

   c. Samples: Form ties, sample and description, showing method of separation when forms are removed.

   d. Plan, elevation and details to show overall pattern, joint locations, form tie locations, and edge, end, corner and other special conditions.

5. Form Lined Concrete Mockup: The mockup shall be built on site at least four weeks before cast-in-place concrete work to be textured starts, using same materials, methods and work force that will be used for the project. Location on site for construction of mockup shall be as approved by Engineer. Concrete shall be placed in the mockup, texture constructed and construction procedure adjusted until a final texture is achieved that is acceptable to the Engineer.

   The mockup shall satisfy the following requirements:

   a. The size shall be 50 square feet, or larger if needed to adequately illustrate the pattern and texture selected.

   b. Include an area to demonstrate each of the following conditions:
      - a form liner butt joint,
      - inside and outside mitered corners,
      - continuation of the pattern through an expansion joint, and
      - a location where a form lined surface meets a smooth concrete surface.

   c. If the design includes stone texture across top of wall it shall be included in mockup.

   d. The mockup should demonstrate how the rectangular cut stone surface interfaces with an abutment pilaster and the bottom of the parapet. The workmanship shall include all required chamfers, rustications and expansion/butt joints as applicable.

e. After concrete work on the mockup is completed and cured, and after the surface is determined by the Engineer to be acceptable for forming and pouring, the contractor shall proceed using the mockup as a quality standard.

f. Color staining shall be demonstrated on the mockup. After the color and staining process are determined by the Engineer to be acceptable, the contractor shall proceed with color staining the form lined surfaces using the mockup as a reference and quality standard.

g. The contractor shall remove the mockup as directed by the Engineer.

6. Protection: The contractor is solely responsible for construction methods, means, techniques, and for construction site safety precautions. The contractor shall conduct all construction operations in conformance with all applicable local, state and federal safety laws, rules, regulations and codes. All Material Safety Data Sheets (MSDS) shall be available for inspection.

7. Liner to Form Attachment System: The form liners shall be securely attached to forms with wood or sheet metal screws; threaded inserts added to the back of the form liner for bolts to fasten the form liner through the forms, or bolted through the face of the form liner with flat head bolts inserted in a pattern joint and through the form liner and forming system. Construction adhesives may be used, but not on reusable forms. Place adjacent form liners with less than ¼-inch separation between form liners. The Contractor shall take care to minimize the differential thickness of adjacent form liner panels. It is required that the finished surface of the simulated 'grout joints' between adjacent panels be smooth and true as the 'joints' within a single panel. Differences in the finished surface at 'grout joints' between adjacent panels after the forms are removed shall be finished by the Contractor to the satisfaction of the Engineer. For additional requirements see 'Wall Patching and Preparation' below.

8. Release of Form Liners from Hardened Concrete: Only manufacturer recommended form release agents shall be utilized and shall be applied to the form liners before the concrete is poured. Release agents shall be applied in strict accordance with release agent manufacturer recommendations. Hand-charged sprayers will only be allowed if a thin uniform coating of release agent is obtained on the form liner.

9. Removal of Form Liners: The form liner shall be removed from the wall within 24 hours of pouring the concrete. The form liners may be detached from the forms and then removed from the concrete, or they may remain attached to the forms and the entire forming system removed from the concrete. Remove the form liners from the top, down. Curing of concrete may be accomplished with form liners and forms placed back against the wall after the initial detachment. Curing shall be performed in accordance with Article 6.01.03-19. Curing compounds shall not be used.

10. Care and Cleaning of Form Liner: Form liners shall be cleaned the same day they are removed from the wall with a power wash and mild detergent. Synthetic brushes with stiff

bristles may be used on stubborn areas. Mild acid washes may also be used. Solvents shall not be used. Cuts and tears in form liners shall be sealed and repaired before each use of the liners. If necessary, patching of holes shall be performed with 100% clear silicone caulk. Joints between form liners shall be cleaned before each use to remove any mortar in the joints. Form liners shall be stored inside or under a protective cover, in a vertical, upside-down position.

11. Wall Patching and Preparation: The Contractor is directed to the "Table of Finishes" in the Special Provision "Section 6.01 – Concrete for Structures" for specific requirements related to the type of finish that each of the concrete components shall receive. After form liners are removed from the hardened concrete, the textured surface shall be prepared. All holes larger than 3/4 inch in greatest principal dimension shall be filled with concrete patching material. All honeycombed areas shall be filled and textured to match surrounding areas. Seam lines and other unnatural protrusions shall be ground down to match adjacent areas with a hand-held power grinder using discs made for concrete. Grinding of seams shall be performed immediately after removal of the form liners. Perform final bush hammering to blend defects and ground areas into the final rock texture. In particular, the process of wall patching and preparation shall be subject to approval of the manufacturer and Engineer.

12. Simulated Stone Mold Preparation: The contractor shall clean and make free of buildup the form liners prior to each pour. He shall inspect for blemishes and tears and repair them if needed following manufacturer's recommendations.

13. Color Staining: Only form-lined surfaces shall be color stained. Surfaces to be stained shall be a minimum of 30 days old before color staining is applied. The Contractor shall power wash the concrete to free it from laitance, dirt, oil and other objectionable materials. Once the concrete has dried, the color staining process shall be applied using colors approved by the Engineer. Water-based stains shall be used in air temperatures ranging from 50 degrees F to 100 degrees F.

    All staining work shall be scheduled after significant adjacent earthwork has been completed to avoid contamination or damaging the surface.

Method of Measurement: This work shall be measured for payment by the actual number of square yards of the face area of accepted form lined concrete completed within the neat lines as shown on the plans, or as ordered by the Engineer.

Basis of Payment: All work under this item will be paid for at the contract unit price per square yard for "Simulated Stone Masonry", complete in place, which price shall include all equipment, formwork, molds, liners, caulk, patching material, color stains, tools and labor incidental thereto.

Pay Item	Pay Unit
Simulated Stone Masonry	s.y.